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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,098	10/15/2003	Karen Luke	HES 2000-IP-002115U1P1P1	6831
28857	7590	11/18/2004	EXAMINER SUCHFIELD, GEORGE A	
CRAIG W. RODDY HALLIBURTON ENERGY SERVICES P.O. BOX 1431 DUNCAN, OK 73536-0440			ART UNIT 3672	
PAPER NUMBER				

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,098

Applicant(s)

LUKE ET AL. S

Examiner

George Suchfield

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-220 is/are pending in the application.
- 4a) Of the above claim(s) 43-54, 85-198, 204-213 and 217-220 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42, 55-84, 199-203 and 214-216 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-220 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/24/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 3672

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-42, 55-84, 199-203 and 214-216, drawn to a method of sealing a subterranean zone, classified in class 166, subclass 166.
 - II. Claims 43-54, 85-143, 155-198 and 204-213, drawn to a cement composition, classified in class 106, subclass varies.
 - III. Claims 144-154 and 217-220, drawn to a foamed cement composition, classified in class 106, subclass varies.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions II or III and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the composition as claimed has utility for materially different purposes such as a concrete molded body or building material.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are two different kinds of cements capable of supporting different patents.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

In the event that Group I is elected, applicant is advised that the application will be transferred to another Technology Center and may be subject to further restriction.

During a telephone conversation with Craig Roddy on 8/30/04 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-42, 55-84, 199-203 and 214-216. Affirmation of this election must be made by applicant in replying to this Office action. Claims 43-54, 85-198, 204-213, 217-220 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 67, 81, 200 and 215 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 67, in calling for the mixing of the cement mix with a mixing fluid before the blending step, appears to contradict parent claim 65 which, instead, calls for the mixing of the aqueous zeolite suspension with a mixing fluid, prior to the blending step.

Claim 81 is deemed indefinite with respect to the recitation in line 1 of "the foamed cement composition is stabilized caused by". It appears that "stabilized caused by" was intended to read -- stabilized by --.

The scope of claims 200 and 215 is not understood. It is not clear whether these claims state that the cement component comprises 100% of one cement component or if the base blend itself comprises 100% cement. The latter interpretation, however, would appear to completely contradict the respective parent claims 199 and 214 by eliminating entirely the zeolite component. Amendment and/or clarification is required.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 3672

8. Claims 1-42, 55-84, 199-203 and 214-216 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-19, and 39-57 of copending Application No. 10/315,415. Although the conflicting claims are not identical, they are not patentably distinct from each other because in carrying out the cementing method of the copending '415 claims, such as claims 1 and 39, the precise manner of mixing of the cementing slurry components, set forth in the claims pending herein, such as initially preparing a base blend of cementitious material and zeolite, to which a mixing fluid is combined, as per claim 1, is deemed an obvious matter of choice or design to one of ordinary skill in the art, e.g., having a preblended mixture of cement and zeolite would appear more convenient and expedient for cementing at a well site in the field.

Otherwise, the cementing method claims of both the pending and copending '415 application appear to correspond or overlap in scope. Also, all the claims pending herein are deemed to comprise well known and conventional cementing additives, such as the cellulose or guar-based fluid loss agents of claim 20. Hence, their use in the copending '415 claims would comprise an obvious matter(s) of choice or design.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3672

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 2, 6, 8, 9, 25-27, 28, 31, 34, 36, 37, 199, 200, 201 and 202 are rejected under 35 U.S.C. 102(b) as being anticipated by Quist et al (3,887,385).

Quist et al (note col. 3, line 17 – col. 4, line 12) discloses a process for cementing a subterranean zone penetrated by a wellbore wherein the cementing slurry utilized comprises a dry cement mix or blend of zeolite and oil-well cement, as called for in claims 1 and 199.

The zeolite formula of claim 2 is deemed encompassed or inherent in Quist et al, which discloses, overall, that the zeolite component comprises “combined aluminum oxides and silicon oxides”.

As per claims 6, 8, 34, 36, 201 the dry cement mix of Quist et al appears to include a zeolite concentration of 9-11.7 wt% (note col. 3, lines 25-28), which falls within the recited zeolite concentration ranges.

As per claims 25, 26, the recited zeolite particle sizes appear encompassed by the corresponding particle sizes or ranges in Quist et al (col. 2, lines 1-8; col. 3, lines 10-14) of less than 30 microns or less than 5 microns.

Art Unit: 3672

As per claim 27, since Quist et al similarly includes a zeolite component in their cementing slurry, such cementing slurry would similarly or inherently realize such reduced apparent viscosity.

As per claim 200, it appears that "100 weight percent" of the cement component in Quist et al may comprise a single cement material, such as "API class G" cement.

As per claim 202, the further inclusion of bitumen particles in the cementing slurry of Quist et al, appears to comprise "a lightweight additive".

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 3, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist et al (3,887,385).

Art Unit: 3672

Official notice is taken that the specific zeolites listed in claim 3, such as analcime, are conventional and well-known zeolites. Accordingly, it would have been an obvious matter of choice or design to one of ordinary skill in the art to which the invention pertains, to select one of the specific zeolites listed in claim 3 for use in the well cementing process of Quist et al, based on relative availability or cost effectiveness.

As per claims 11 and 12, it is deemed that the precise amount of water admixed with the dry cement blend in the process of Quist et al would have been an obvious matter of choice or design based, e.g., the particular wellbore environment and/or characteristics and properties of the penetrated subterranean formation(s) actually encountered in the field.

14. Claims 10, 13-21, 29, 30, 38-41, 74-76, 80-83, 203, 214 and 215 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist et al (3,887,385) as applied to claims 1 and 199 above, and further in view of Boncan et al (6,145,591).

Boncan et al discloses a method of cementing a subterranean zone(s) penetrated by a well utilizing an exemplary cementing slurry which includes all the cement additives recited in these claims, such as fly ash or an accelerator.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to include one or more of the cementing additives set forth in Boncan et al, as called for in these claims, in the cementing slurry utilized in the well cementing process of Quist et al, in order to increase the well cementing effectiveness of Quist et al, e.g., by tailoring the cementing slurry based on the particular wellbore

Art Unit: 3672

environment and/or characteristics and properties of the penetrated subterranean formation(s) actually encountered in the field, as taught by Boncan et al. It is further deemed that the precise amounts and ranges of such cementing slurry components called for in these claims, such as the amount of accelerating additive set forth in claim 17, would have been an obvious matter of choice or design in carrying out the modified process of Quist et al based on, e.g., routine experimentation for process optimization.

With specific reference to independent claims 74 and 214, Boncon et al may further include a foaming agent in the cementing slurry, such that a foamed cementing slurry results, which is then circulated in the well. Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to similarly include a foaming agent into the cementing slurry, resulting in a foamed cementing slurry, utilized in the well cementing process of Quist et al, as taught by Boncon et al, in order to tailor the process of Quist et al to the particular wellbore environment or subterranean formations encountered in the field, such as when conditions warrant the use of a foamed cement, e.g., cementing across formations of low hydrostatic pressure or unconsolidated matrix.

The cementing additive recited in claims 75, 76, and 80-83 are all set forth in Boncon et al. It is further noted that, since Quist et al, as modified, similarly includes a zeolite component in their foamed cementing slurry, such foamed cementing slurry would similarly or inherently realize such stability, as called for in claims 80 and 81.

As per claim 215, it appears that "100 weight percent" of the cement component in Quist et al, as modified, may comprise a single cement material, such as "API class G" cement.

15. Claims 1, 2, 9, 27, 28, 31, 37, 55, 56, 58, 60-62, 64, 199 and 200 are rejected under 35 U.S.C. 102(e) as being anticipated by Roij (2004/0040475).

Roij (note [0055] –[0065], [0070]), discloses a process for grouting utilizing a grouting or cementing slurry comprising a mixture of a cement and a zeolite component, as called for in independent claims 1 and 199. It is deemed that a process of "grouting", per se, is inherently or necessarily characterized by cementing a borehole, well and/or wellbore, which would penetrate one or more below ground or subterranean zones. With further regard to independent claims 1 and 199, an initial mixture of cement and zeolite can be further mixed with water to formulate the cementing slurry in Roij (note [0065])

With further regard to independent claim 55, Roij (note [0063]) further discloses that the zeolite may be provided in the form of an aqueous suspension, which is then mixed with the cement component.

The zeolite formula of claims 2 and 56 is deemed encompassed or inherent in Roij, insofar as zeolites, per se, comprise combined aluminum oxides and silicon oxides, in varying amounts.

As per claim 27, since Roij similarly includes a zeolite component in their cementing slurry, such cementing slurry would similarly or inherently realize such reduced apparent viscosity.

As per claim 61, since Roij similarly formulates an aqueous zeolite suspension, in the overall formulation of the cementing slurry, such aqueous zeolite suspension would similarly or inherently be stable for two weeks.

As per claim 64, the extremely wide range of relative amounts of aqueous zeolite suspension and cement, admixed to form the well cementing slurry, would appear encompassed by the corresponding mixing of aqueous zeolite suspension and cement set forth in Roij.

As per claim 200, it appears that "100 weight percent" of the cement component in Quist et al may comprise a single cement material, such as "API class G" cement.

16. Claims 3, 8, 11, 12, 25, 26, 36, 57, 65-68, are rejected under 35 U.S.C. 103(a) as being unpatentable over Roij (2004/0040475).

Official notice is taken that the specific zeolites listed in claims 3, 57, such as analcime, are conventional and well-known zeolites. Accordingly, it would have been an obvious matter of choice or design to one of ordinary skill in the art to which the invention pertains, to select one of the specific zeolites listed in claim 3 for use in the well cementing process of Roij, based on relative availability or cost effectiveness.

As per claims 8, 36 it is noted in the grouting or well cementing embodiment of Roij, the concentration of zeolite appears to comprise less than or up to 0.4 weight % (note [0070]). To utilize an amount somewhat in excess of 0.4 weight %, such as 0.5 weight % zeolite in the process of Roij would have been an obvious matter of choice or design based on the particular grouting wellbore environment or formation(s) encountered and/or result of routine experimentation for economic feasibility.

As per claims 11 and 12, it is deemed that the precise amount of water further admixed with the cement-zeolite mixture or blend in the process of Roij, would have been an obvious matter of choice or design based, e.g., the particular wellbore environment and/or characteristics and properties of the penetrated subterranean formation(s) actually encountered in the field.

As per claims 25 and 26, the precise mean particle size of the zeolite component in the process of Roij is deemed an obvious matter of choice or design based on the particular wellbore environment and/or characteristics and properties of the penetrated subterranean formation(s) actually encountered in the field, or result(s) of routine experimentation for process optimization.

As per claims 65-68, to admix the aqueous zeolite suspension, cement component and make-up water or aqueous medium in the order(s) specified by these claims would have been an obvious matter(s) of choice or design insofar as Roij may admix such components in varying orders of addition (note [0061]-[0065]).

17. Claims 10, 13-21, 29, 30, 38-41, 63, 69-73, 74-76, 78, 80-83, 202, 203, and 214-216 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roij (2004/0040475) as applied to claims 1, 55 and 199 above, and further in view of Boncan et al (6,145,591).

It is observed that the grouting or wellbore cementing process or application of Roij includes minimal disclosure beyond the formulation of the zeolite-containing well cementing or grouting slurry. Boncan et al, however, discloses a method of cementing a subterranean zone(s) penetrated by a well utilizing exemplary cementing slurry(s),

Art Unit: 3672

indicating at great length, conventional and advantageous additives and accompanying operating conditions for their use, which includes all the cement additives recited in these claims, such as fly ash or an accelerator.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to include one or more of the cementing additives set forth in Boncan et al, as called for in these claims, in the cementing slurry utilized in the well cementing or grouting process of Roij, in order to increase the well cementing effectiveness of Roij, e.g., by tailoring the cementing slurry based on the particular wellbore environment and/or characteristics and properties of the penetrated subterranean formation(s) actually encountered in the field, as taught by Boncan et al. It is further deemed that the precise amounts and ranges of such cementing slurry components called for in these claims, such as the amount of accelerating additive set forth in claim 17, would have been an obvious matter of choice or design in carrying out the modified process of Roij based on, e.g., routine experimentation for process optimization.

With specific reference to independent claims 74 and 214, Boncon et al may further include a foaming agent in the cementing slurry, such that a foamed cementing slurry results, which is then circulated in the well. Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to similarly include a foaming agent into the cementing slurry, resulting in a foamed cementing slurry, utilized in the well cementing process of Roij, as taught by Boncon et al, in order to tailor the process of Roij to the particular wellbore environment or subterranean

Art Unit: 3672

formations encountered in the field, such as when conditions warrant the use of a foamed cement, e.g., cementing across formations of low hydrostatic pressure or unconsolidated matrix.

The cementing additive recited in claims 75, 76, 80-83 are all set forth in Boncon et al. It is further noted that, since Roij, as modified, similarly includes a zeolite component in their foamed cementing slurry, such foamed cementing slurry would similarly or inherently realize such stability, as called for in claims 80, 81.

As per claim 215, it appears that "100 weight percent" of the cement component in Roij, as modified, may comprise a single cement material.

18. Claim 1, 2, 8, 9, 22, 23, 27, 28, 31, 36, 37, 42, 59, 74, 76, 81, 82, 199, 200, 202, 214-216 are rejected under 35 U.S.C. 102(b) as being anticipated by Roddy (6,457,524).

Roddy discloses a process of cementing a subterranean zone(s) penetrated by a wellbore, i.e., a well cementing process, wherein the cementing slurry utilized comprises a dry cement mix or blend of zeolite and oil-well cement, as called for in claims 1 and 199.

With specific reference to independent claims 74 and 214, Boncon et al may further include a foaming agent in the cementing slurry, such that a foamed cementing slurry results, which is then circulated in the well.

The zeolite formula of claim 2 is deemed encompassed or inherent in Roddy, insofar as zeolites, per se, comprise combined aluminum oxides and silicon oxides, in varying amounts.

As per claims 8, 36 and 201 the dry cement mix of Roddy appears to include a zeolite concentration of up to 1 wt% (note col. 4, lines 56-67), which falls within the recited zeolite concentration ranges.

As per claims 22 and 42 it is noted that Roddy (note col. 4, lines 33-67) clearly discloses the use of a flow enhancing agent absorbed on the zeolite. The amount of flow enhancing agent absorbed on the zeolite specified in Roddy (col. 4, lines 56-67) encompasses the range of claim 23.

As per claim 27, since Roddy similarly includes a zeolite component in their cementing slurry, such cementing slurry would similarly or inherently realize such reduced apparent viscosity.

As per claim 76, the recited density overlaps or is encompassed by the corresponding cementing slurry density in Roddy (note col. 3, lines 1-17) of "less than 14 lbs/gal".

As per claims 81 and 216, it is further noted that, since Roddy, as modified, similarly includes a zeolite component in their foamed cementing slurry, such foamed cementing slurry would similarly or inherently realize such stability.

As per claims 200 and 215, it appears that "100 weight percent" of the cement component in Roddy may comprise a single cement material, such as Portland cement.

As per claim 202, Roddy (col. 3, lines 29-47) may further include an additional lightweight additive in the cementing slurry.

19. Claims 3, 11, 12, 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roddy (6,457,524)

Official notice is taken that the specific zeolites listed in claim 3, such as analcime, are conventional and well-known zeolites. Accordingly, it would have been an obvious matter of choice or design to one of ordinary skill in the art to which the invention pertains, to select one of the specific zeolites listed in claim 3 for use in the well cementing process of Roddy, based on relative availability or cost effectiveness.

As per claims 11 and 12, it is deemed that the precise amount of water admixed with the dry cement blend in the process of Roddy would have been an obvious matter of choice or design based, e.g., the particular wellbore environment and/or characteristics and properties of the penetrated subterranean formation(s) actually encountered in the field.

As per claims 25, 26, the precise mean particle size of the zeolite component in the process of Roddy is deemed an obvious matter of choice or design based on the particular wellbore environment and/or characteristics and properties of the penetrated subterranean formation(s) actually encountered in the field, or result(s) of routine experimentation for process optimization. Moreover, note that Roddy may employ very fine size cement particles in the cement mix, which would appear to suggest the use of very fine particle size zeolite in order to mix uniformly with the cement.

20. Claims 10, 13-21, 29, 30, 38-41, 75, 76, 83 and 203 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roddy (6,457,524) as applied to claims 1, 74 and 199 above, and further in view of Boncan et al (6,145,591).

Boncan et al discloses a method of cementing a subterranean zone(s) penetrated by a well utilizing an exemplary cementing slurry which includes all the cement additives recited in these claims, such as fly ash or an accelerator.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to include one or more of the cementing additives set forth in Boncan et al, as called for in these claims, in the cementing slurry utilized in the well cementing process of Roddy, i.e., comprising the "other conventional additives" in Roddy (note col. 6, lines 25-32), in order to increase the well cementing effectiveness of Roddy, e.g., by tailoring the cementing slurry based on the particular wellbore environment and/or characteristics and properties of the penetrated subterranean formation(s) actually encountered in the field, as taught by Boncan et al. It is further deemed that the precise amounts and ranges of such cementing slurry components called for in these claims, such as the amount of accelerating additive set forth in claim 17, would have been an obvious matter of choice or design in carrying out the modified process of Roddy based on, e.g., routine experimentation for process optimization.

21. Claims 200 and 215 are rejected under 35 U.S.C. 102(b) as being anticipated by Boncan et al (6,145,591) or Arias et al (6,235,809).

As noted above, these claims could be interpreted as comprising a base blend, and ultimately a cementing slurry, which completely excludes the zeolite component of the base blend and as set forth by the respective independent claims 199 and 214, i.e., the base blend comprises 100% cement.

Art Unit: 3672

Accordingly, both Boncan et al and Arias et al discloses processes of cementing a well wherein zeolite is not included in the cementing slurry, but which said slurry is formulated and utilized comprising a step of adding cement to water. They also further comprise a foaming agent in the cementing slurry, as called for in claim 215.

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

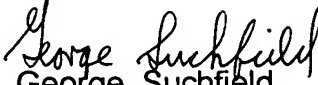
23. It is noted that claims 4, 5, 7, 24, 32, 33, 35, 59, 77, 79 and 84 have been rejected only on the grounds of provisional obviousness double patenting and/or under 35 USC 112(2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Suchfield whose telephone number is 703-308-2152. The examiner can normally be reached on M-F (6:30 - 3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3672

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